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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,589	04/26/2000	Amro A Younes	53921/79	1057

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EXAMINER

PHILPOTT, JUSTIN M

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/558,589

Applicant(s)

YOUNES ET AL.

Examiner

Justin M Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed November 6, 2003 have been fully considered but they are not persuasive.

First, applicant argues (page 9, fourth paragraph) that Aznar fails to imply that the change or conversion from a point-to-point connection to a point-to-multipoint connection can be achieved without disrupting the original connection. However, as discussed in the previous office action (e.g., with respect to the citation of col. 2, lines 15-22), Aznar teaches “easy system network control evolution from an initial point-to-point connection to a point-to-multipoint connection by *adding* parties, i.e., additional target ports” [emphasis added]. Continuing, Aznar states, “When another party should be added, the system network control *adds* an identifier, representing the new target port” [emphasis added]. By teaching the addition of target ports, as opposed to the removal of connections prior to or during the establishing of new connections, Aznar clearly teaches the change or conversion from a point-to-point connection to a point-to-multipoint connection is achieved without disrupting the original connection. Thus, applicant’s argument that Aznar fails to teach the change or conversion from a point-to-point connection to a point-to-multipoint connection can be achieved without disrupting the original connection is not persuasive.

Second, applicant argues (page 9, fourth paragraph to page 10) that Aznar fails to teach specific non-disruptive conversion described applicant’s specification on, e.g., pages 11 and 12. However, in response to applicant's argument that the references fail to show certain features of

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applicant's invention, it is noted that the features upon which applicant relies (i.e., non-disruptive conversion steps as they are recited on pages 11 and 12 of the specification) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, applicant's argument is moot.

Third, applicant argues (page 10, continued paragraph to first paragraph) that Aznar fails to teach the configuration steps 100 and 102 in the order described in applicant's specification. However, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the configuration steps 100 and 102 in the order described in applicant's specification) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, applicant's argument is moot.

Fourth, applicant argues (page 10, second paragraph) that Aznar fails to teach the new limitation in the amended claims, "wherein the configuration of the device servicing the first output point that results from step (b) remains unchanged". However, as discussed above, Aznar teaches "easy system network control evolution from an initial point-to-point connection to a point-to-multipoint connection by *adding* parties, i.e., additional target ports" [emphasis added] (see col. 2, lines 15-22). Continuing, Aznar states, "When another party should be added, the system network control *adds* an identifier, representing the new target port" [emphasis added]. By teaching the addition of target ports, as opposed to the removal of connections prior to or during the establishing of new connections, Aznar clearly teaches the change or conversion from

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a point-to-point connection to a point-to-multipoint connection is achieved without disrupting the original connection. Thus, Aznar teaches the initial configuration (e.g., point-to-point connection) remains unchanged upon the establishment of point-to-multipoint connections. Therefore, applicant's argument that Aznar fails to teach the new limitation of the amended claims is not persuasive.

***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, 7-19 and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,684,797 to Aznar et al.

Regarding claims 1, 9 and 15, Aznar teaches a method of processing a stream of data packets in a packet switch (e.g., see FIG. 1, and col. 1, line 49 – col. 6, line 38) having one or more interface devices (e.g., receive side 111/input port adapter, transmit side 120/output port adapter) for servicing an input point (e.g., 101-P1), a first output point (e.g., 102-P1) and a second output point (e.g., 104-P2) of the switch, the method comprising the steps of: (a) configuring the device servicing the input point to attach overhead associated with a point-to-point connection (e.g., TP vector representing a single target port, see col. 2, line 66 – col. 3, line 19) to packets received at the input point in order to route the packets to the first output point; (b) configuring the device servicing the first output point to receive and process the packets having the point-to-point overhead attached thereto (e.g., see col. 3, lines 46-52 wherein TP vector denotes overhead corresponding to a single output port, or a point-to-point connection); (c)

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configuring the device servicing the second output point to receive and process packets having overhead attached thereto which is associated with a point-to-multipoint connection for routing packets from the input point to the first output point and from the input point to the second output point (e.g., see col. 4, lines 38-60 wherein TP vector denotes overhead corresponding to a plurality of ports, or a point-to-multipoint connection); (d) configuring the device servicing the first output point to additionally receive and process packets having the point-to-multipoint overhead attached thereto (e.g., see col. 3, lines 20-30 wherein the device servicing the first output port is configured to receive and process TP vectors, or packets having point-to-multipoint overhead attached thereto), wherein the configuration of the device servicing the first output point that results from step (b) remains unchanged (e.g., see col. 2, lines 15-22, wherein Aznar teaches “easy system network control evolution from an initial point-to-point connection to a point-to-multipoint connection by *adding* parties, i.e., additional target ports” and “When another party should be added, the system network control *adds* an identifier, representing the new target port” [emphasis added]); and (e) configuring the device servicing the input point to attach the point-to-multipoint overhead to packets received at the input point only after step (d) is completed, thereby converting a point-to-point packet flow into a point-to-multipoint packet flow without disrupting the point-to-point packet flow (e.g., see col. 2, lines 15-22).

Regarding claims 2, 10 and 19, Aznar further teaches the steps of: (f) configuring the device servicing the second output point to stop receiving and processing packets having the point-to-multipoint overhead (e.g., resetting bits corresponding to ports, see col. 4, lines 15-19); (g) configuring the device servicing the input point to attach the point-to-point overhead packets received at the input (e.g., see col. 2, line 66 – col. 3, line 19); and (h) configuring the device

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servicing the first output to stop receiving and processing the packets having point-to-multipoint overhead only after step (g) is completed (e.g., wherein packets are only sent to designated ports in accordance with received TP vectors, see col. 4, lines 1-54), thereby terminating the flow of packets to the second output point without disrupting the flow of packets to the first output point (e.g., see col. 2, lines 15-22 wherein a connection can be changed on the fly from point-to-multipoint to point-to-point).

Regarding claims 7, 14 and 24, Aznar teaches a packet is a fixed-length cell (e.g., see col. 3, lines 46-49 regarding ATM cell).

Regarding claim 8, Aznar teaches the packet switch is a connection-oriented switch (e.g., see col. 1, lines 49-52).

Regarding claims 11, 16 and 21, Aznar teaches the point-to-point overhead comprises a unique interface card address (e.g., a TP vector for a point-to-point connection comprises one bit set to 1 wherein the specific placement of the 1 within the vector corresponds to a specific unique port, or interface card).

Regarding claims 12, 17 and 22, Aznar teaches the point-to-multipoint overhead (e.g., TP vector) comprises a multicast interface card address referencing a plurality of interface cards (e.g., each bit of TP vector corresponds to one of a plurality of ports, or interface cards).

Regarding claims 13, 18 and 23, Aznar teaches the point-to-point overhead and the point-to-multipoint overhead comprise identical bitmaps wherein the setting of a single bit identifies a point-to-point connection and the setting of plural bits identifies a point-to-multipoint connection (e.g., see col. 3, lines 10-20).

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 3-6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aznar in view of U.S. Patent No. 5,959,972 to Hamami.

Regarding claims 3 and 20, Aznar teaches the method as discussed above regarding claims 2 and 19, and further teaches the point-to-point overhead comprises a unique interface card address (e.g., a TP vector for a point-to-point connection comprises one bit set to 1 wherein the specific placement of the 1 within the vector corresponds to a specific unique port, or interface card).

However, Aznar may not specifically disclose each switch point is further referenced by a virtual path identifier.

Hamami teaches a method of port/link redundancy in an ATM switch. Specifically, Hamami discloses that it is well known in the art of ATM switches that an ATM header comprises a virtual path identifier (e.g., see col. 1, lines 43-55) which allows the network to associate a given cell with a given connection. Furthermore, the port/link redundancy invention of Hamami provides improved connectivity reliability (e.g., see col. 2, lines 34-49). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Hamami to the method of Aznar in order to allow the network to associate a given cell with a given connection and, further, to provide improved connectivity reliability.

Regarding claim 4, as discussed above regarding claims 11, 16 and 21, Aznar teaches the point-to-point overhead comprises a unique interface card address (e.g., a TP vector for a point-



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to-point connection comprises one bit set to 1 wherein the specific placement of the 1 within the vector corresponds to a specific unique port, or interface card).

Regarding claim 5, as discussed above regarding claims 12, 17 and 22, Aznar teaches the point-to-multipoint overhead (e.g., TP vector) comprises a multicast interface card address referencing a plurality of interface cards (e.g., each bit of TP vector corresponds to one of a plurality of ports, or interface cards).

Regarding claim 6, as discussed above regarding claims 13, 18 and 23, Aznar teaches the point-to-point overhead and the point-to-multipoint overhead comprise identical bitmaps wherein the setting of a single bit identifies a point-to-point connection and the setting of plural bits identifies a point-to-multipoint connection (e.g., see col. 3, lines 10-20).

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 703.305.7357. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 703.308.6602. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.4750.



Justin M Philpott



HUY D. VU  
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